

ABSTRACT OF THE DISCLOSURE

Methods and materials for scintillation assays are disclosed. The scintillation assays rely on differences in general molecular property-based binding interactions, such as charge or hydrophobicity, to localize a radioactive substance near a scintillating material, stimulating scintillation. They are thus described as a direct adsorption scintillation assay (DASA) to distinguish them from the scintillation proximity assay (SPA). The assays are more convenient and inexpensive to implement than SPAs, which rely on specific binding of ligand-receptor pairs, antibody-antigen pairs, or other binding partners which rely on the precise and specific structural complementarity of the partners. The assays can be employed for studying enzymatic reactions, such as those involved in the synthesis of Mur-pentapeptide. The assays are readily adaptable to high throughput screening for use in conjunction with combinatorial libraries of compounds.